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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,868	01/13/2004	Joseph P. Odenwalder	PA298B2A3D1	3404
23596 7590 09/22/2008 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER TSE, YOUNG TOI				
ART UNIT 2611		PAPER NUMBER		
NOTIFICATION DATE 09/22/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/756,868

Applicant(s)

ODENWALDER, JOSEPH P.

Examiner

YOUNG T. TSE

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-18 and 20-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-18 and 20-35 is/are rejected.
- 7) ☒ Claim(s) 1,3-18 and 20-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 19, 2008 has been entered.

Response to Arguments

2. Applicant's arguments filed August 21, 2008 have been fully considered but they are not persuasive.

Applicants believe that the amendment of claim 1 to recite "modulating power control data with a first code to produce a first stream of modulated symbols" (with similar amendment in claim 18) had overcome the rejection of claims 1, 3-18 and 20-34 under 35 U.S.C. 112, first paragraph.

The examiner respectfully disagrees. See detail explanation below.

Claim Objections

3. Claims 1, 3-18, and 20-34 are objected to because of the following informalities:
Claim 1, line 9, "the modulating" is suggested change to "said modulating".

Claim 5, line 1, "claim J" should be "claim 1".

Claim 7, both lines 3 and 6, "the first and" should be "the first stream and".

Claim 9, both lines 3 and 5, "of modulated data" should be "of modulated symbols".

Claim 15, line 2, "the length of" should be "a length of".

Claim 16 (line 2) and claim 17 (lines 1-2), the term "adjusting gain of" should be "adjusting gains of".

Claim 17, lines 3 and 5, "a first stream" and "the first stream" should be "the first stream" and "the first stream of modulated symbols".

Claims 3-4, 6-8 and 10-14 are either directly or indirectly depending from the independent claim 1.

Claim 18, lines 5 and 7, "symbols:" and "stream: and" should be "symbols;" and "stream; and", respectively.

Claim 30, both lines 6 and 8, "signal:" should be "signal;".

Claim 32, line 2, "the length of" should be "a length of".

Claim 33, line 2, "adjusting gain of" should be "adjusting gains of".

Claim 34, lines 3 and 6-7, "a first stream" and "the first stream" should be "the first stream" and "the first stream of modulated symbols".

Claims 20-29 and 31 are either directly or indirectly depending from the independent claim 18.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 3-18 and 20-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

According to the present invention shown in Figures 2 and 4 and discussed in the specification, as recited in claims 1, 3-18 and 20-35.

Figure 2 shows a block diagram of a communication system comprising a subscriber unit 100 and a base station 120. The subscriber unit 100 comprises a QPSK channel encoder 102 for encoding QPSK data (QPSK DATA) to generate channel encoded QPSK data to a modulator 104; a BPSK channel encoder 103 for encoding BPSK data (BPSK DATA) to generate channel encoded BPSK data to the modulator 104; the modulator 104 also modulates an un-coded pilot signal (PILOT) and an un-coded power control signal (POWER CONTROL); the modulated un-encoded pilot signal, the modulated un-encoded power control signal, the modulated encoded BPSK data, and the modulated encoded QPSK data are processed by an RF processing system 106; and the processed signals are being transmitted to the receiver circuit of the base station 120.

Figure 4 shows the detailed embodiment of the modulator 104 of Figure 2. The modulator 104 comprises a plurality of mixers or modulators 150a-150d for modulating the un-encoded power control signal (PC), the encoded BPSK data (BPSK), and the in-phase and quadrature phase encoded QPSK data (QPSK_I and QPSK_Q) with Walsh codes (W₁, W₂ and W₃), respectively, to generate the modulated un-encoded power control signal, the modulated encoded BPSK data, and an in-phase and quadrature phase modulated encoded QPSK data respectively to each of a plurality of gain adjusters (with gains A₁-A₃) 154, 156, 158a and 158b; a gain adjuster (with gain A₀) 152 adjusts the un-coded pilot signal; a combiner or adder 160 for combining the outputs of the adjusters 152, 154, 156, and 158a to generate a combined signal 160; a complex multiplication circuit including mixers or multipliers 162a, 162b, 164a, 164b, 164c and 164d, and adders 166a and 166b for multiplying the combined signal 161 and the gain adjusted signal 163 from the gain adjuster 158b with in-phase and quadrature PN signals generated from the PN multipliers 162a and 162b; and the RF processing system 106 for processing the complex multiplication signals from the complex multiplication circuit.

Regarding the apparatus claims 18 and 20-34 together with the disclosure of Figures 2 and 4.

Claim 18 recites an apparatus for generating data for transmission from a subscriber unit to a base station, the apparatus comprising:

a plurality of modulators configured to modulate each of a plurality of channel encoded data with an associated code to produce a plurality of streams of modulated symbols;

a combiner, communicatively coupled to said plurality of modulators, configured to combine the plurality of streams of modulated symbols into a combined stream; and

a complex multiplier, communicatively coupled to said combiner, configured to complex multiply said combined stream with a complex pseudonoise code to reduce a peak-to-average ratio of the transmission,

wherein said plurality of modulators comprises:

a first modulator configured to modulate power control data with a first code to produce a first stream of modulated symbols; and

a second modulator configured to modulate a user first channel encoded data with a second code to produce a second stream of modulated symbols.

As discussed earlier in the modulator 104 of Figure 4, clearly, not all the plurality of modulators 150a through 150d are configured to modulate **each of a plurality of channel encoded data** with an associated code to produce a plurality of streams of modulated symbols. Therefore, the power control data modulated by the first modulator 150a is not a channel encoded data of the plurality of channel encoded data. Also see apparatus claim 35.

Claim 20 recites the combiner comprises:

a first adder configured to provide the first stream of modulated symbols as a first combined stream; and

a second adder configured to provide the second stream of modulated symbols as a second combined stream.

As discussed earlier in the modulator 104 of Figure 4, clearly, only one combiner or adder 160 is shown in Figure 4 and configured to provide the combined stream 161. Applicants intention of the second combined stream appears to be the gain adjusted signal 163, however, there is no where that the gain adjusted signal 163 is generated by an adder. Also see claims 22, 24, 26 and 29.

Claim 23 recites the plurality of modulators further comprises:

a fourth modulator configured to modulate a control channel encoded data with a fourth code to produce a fourth stream of modulated symbols.

As discussed earlier in the modulator 104 of Figure 4 and recited in claim 18, the control channel encoded data appears to be the same data as the power control data by the first modulator, except that the power control data is not control channel **encoded** data.

Method claims 1 and 3-17 recite similar claimed subject matters as recited in the apparatus claims 18 and 20-34 for the same reasons set forth described above.

Therefore, claims 1, 3-18 and 20-35 contain subject matter which was not described in the specification and/or shown in the disclosure of the drawings in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3-9 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The providing step recited in each of claims 3, 5, 7 and 9 is vague and indefinite, especially, it is unclear what is meant by the separation of different stream of modulated symbols for the complex multiplying.

Claims 4, 6 and 8 depend from precedent claim 1 and further comprising the modulation steps are also vague and indefinite because the additional modulating steps are part of the modulating step of modulating each of the plurality of channel encoded data recited in claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is 571- 272-3051. The examiner can normally be reached on Monday-Friday 10:00-6:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on 571- 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/YOUNG T. TSE/
Primary Examiner, Art Unit 2611